

WHAT IS CLAIMED:

1. A vibration-damping ring insert arrangement, comprising:  
a vibration-damping ring;  
a hollow cylinder member comprising a first end, a second end, and an inner surface that is connected to an outer surface of the vibration-dampening ring; and  
one of an outwardly extending edge and outwardly extending edge segments arranged at the second end.
2. The arrangement of claim 1, further comprising a plurality of holding elements extending outwardly from an outer surface of the hollow cylinder member, whereby the plurality of holding elements are adapted to secure the hollow cylinder member in an opening of a component.
3. The arrangement of claim 2, wherein each holding element comprises a resilient retaining member.
4. The arrangement of claim 1, wherein the hollow cylinder member comprises an external circumferential retaining groove.
5. The arrangement of claim 4, further comprising one of a securing ring and a retaining ring configured to engage the external circumferential retaining groove.
6. The arrangement of claim 5, further comprising inwardly extending spring tappets arranged on one of the securing or the retaining ring.

7. The arrangement of claim 1, further comprising one of a securing ring and a retaining ring configured to engage an outer circumferential surface of the hollow cylinder member.

8. The arrangement of claim 7, further comprising inwardly extending spring tappets arranged on one of the securing or the retaining ring.

9. The arrangement of claim 1, wherein the outwardly extending edge or the outwardly extending edge segments extend substantially perpendicular to an axis running through the hollow cylinder member.

10. The arrangement of claim 1, wherein the vibration-damping ring comprises a first annular projecting portion and a second annular projecting portion and wherein the first annular projecting portion extends beyond the first end of the hollow cylinder member by a given amount.

11. The arrangement of claim 1, wherein the vibration-damping ring comprises a first annular projecting portion and a second annular projecting portion and wherein the second annular projecting portion extends beyond the second end of the hollow cylinder member by a given amount.

12. The arrangement of claim 1, wherein the vibration-damping ring comprises a first annular projecting portion and a second annular projecting portion and wherein the first and second annular projecting portions extend respectively beyond the first and second ends of the hollow cylinder member by substantially equal amounts.

13. The arrangement of claim 1, wherein the second end comprises an annular base surface.

14. The arrangement of claim 1, wherein the vibration-damping ring comprises at least one of a vibration-damping material, an elastomeric material, and a rubber material.

15. The arrangement of claim 1, wherein the vibration-damping ring is one of permanently joined and non-removably fixed to the inner surface of the hollow cylinder member.

16. The arrangement of claim 1, wherein the vibration-damping ring is connected to the inner surface of the hollow cylinder member via one of adhesive bonding and vulcanizing.

17. The arrangement of claim 1, wherein the hollow cylinder member is made of a metal.

18. The arrangement of claim 17, wherein the metal comprises spring steel.

19. The arrangement of claim 1, further comprising one of an anti-slip material and a vibration-damping material arranged on an annular surface of one of the outwardly extending edge and the outwardly extending edge segments.

20. The arrangement of claim 19, wherein the anti-slip material or the vibration-damping material comprises one of a rubber layer and an elastomeric layer.

21. The arrangement of claim 19, wherein the one of an anti-slip material and vibration-damping material is connected to the annular surface by one of adhesive bonding and vulcanizing.

22. The arrangement of claim 1, further comprising a first connecting element arranged within the vibration-damping ring, wherein the first connecting element is adapted to be connected to a second connecting element.

23. The arrangement of claim 1, further comprising a first connecting element arranged within an opening of the vibration-damping ring, wherein the first connecting element is adapted to be connected to a second connecting element.

24. The arrangement of claim 23, wherein the first connecting element is adapted to be detachably threadably connected to the second connecting element.

25. The arrangement of claim 23, wherein the first connecting element comprises a retaining spring adapted to be detachably connected to the second connecting element.

26. The arrangement of claim 25, wherein the second connecting element comprises one of a retaining-bolt, a retaining screw-bolt and a locking-bolt.

27. The arrangement of claim 26, wherein the first connecting element is threadably connected to the second connecting element.

28. The arrangement of claim 26, wherein the first connecting element is connected

to the second connecting element via a locking connection which utilizes a spring.

29. The arrangement of claim 26, wherein the first connecting element is connected to the second connecting element via a rotatable locking connection which utilizes a spring.

30. The arrangement of claim 26, wherein the first connecting element is connected to the second connecting element via an axially movable non-rotatable locking connection which utilizes a spring.

31. The arrangement of claim 26, wherein the first connecting element comprises a sleeve portion arranged within the vibration-dampening ring and a retaining-spring portion comprising a plurality of spring fingers which extend beyond the second end.

32. The arrangement of claim 31, wherein the second connecting element comprises a retaining bolt having a groove which receives the plurality of spring fingers.

33. The arrangement of claim 32, wherein free ends of the plurality of spring fingers taper towards one another.

34. The arrangement of claim 26, wherein the first connecting element comprises a housing having an internal taper, movable shell-shaped threaded nut segments having an external taper and a spring which biases the movable shell-shaped threaded nut segments, and wherein the second connecting element comprises a threaded bolt which threadably engages the movable shell-shaped threaded nut segments.

35. The arrangement of claim 26, wherein the first connecting element comprises

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a sleeve portion arranged within the vibration-dampening ring and a retaining-spring portion comprising a plurality of spring fingers which extend beyond the second end and a plurality of outwardly extending projections.

36. The arrangement of claim 1, further comprising a first connecting element in an opening of the vibration-damping ring, the first connecting element being a connecting sleeve.

37. A detachable connection arrangement for connecting a first component having an opening to a second component having an opening, the connection arrangement comprising:

the vibration-damping ring insert arrangement of claim 1; and

the first component being coupled to the second component via the vibration-damping ring insert arrangement.

38. The connection arrangement of claim 37, further comprising a first connecting element passing through the opening in the first component and a second connecting element passing through the opening in the second component, wherein the first connecting element is connected to the second connecting element.

39. The connection arrangement of claim 38, wherein the first component is arranged adjacent one of the outwardly extending edge and the outwardly extending edge segments.

40. The arrangement of claim 1, wherein the hollow cylinder member is adapted to one of compress elastically and compress radially, whereby an outer diameter of the hollow

cylinder member is capable of being reduced by compression.

41. The arrangement of claim 1, in combination with first and second connecting elements which are adapted to connect together first and second components.

42. The arrangement of claim 41, wherein the first connecting element comprises a retaining-spring arrangement and wherein the second connecting element comprises a bolt having a hook-in area adapted to receive spring ends of the retaining-spring arrangement.

43. The arrangement of claim 41, wherein the second connecting element comprises a retaining screw bolt adapted to be connected to the second component and to the first connecting element.

44. The arrangement of claim 1, wherein the hollow cylinder member comprises a slot which allows the hollow cylinder member to undergo a change in diameter.

45. The arrangement of claim 1, wherein the hollow cylinder member comprises a one-piece metal member.

46. A method of detachably connecting a first component having an opening to a second component having an opening, the method comprising:

mounting the vibration-damping ring insert arrangement of claim 1 to the first component; and

connecting the second component to the first component via the vibration-damping ring insert arrangement, a first connecting element and a second connecting element.

47. A vibration-damping ring insert arrangement, comprising:

a vibration-damping ring comprising an outer circumferential surface and first and second annular projecting portions;

a hollow cylinder member comprising a first end, a second end, and an inner surface that is connected to the outer circumferential surface of the vibration-dampening ring;

the second end of the hollow cylinder member comprising one of an outwardly extending edge and outwardly extending edge segments; and

the one of outwardly extending edge and outwardly extending edge segments extending substantially perpendicular to an axis running through the hollow cylinder member,

wherein the first annular projecting portion extends beyond the first end of the hollow cylinder member, and

wherein the second annular projecting portion extends beyond the second end of the hollow cylinder member.

48. A detachable connection arrangement for connecting a first component having an opening to a second component having an opening, the connection arrangement comprising:

the vibration-damping ring insert arrangement of claim 47; and

the first component being coupled to the second component via the vibration-damping ring insert arrangement.

49. A method of detachably connecting a first component having an opening to a second component having an opening, the method comprising:

mounting the vibration-damping ring insert arrangement of claim 47 to the first



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component; and

connecting the second component to the first component via the vibration-damping ring insert arrangement, a first connecting element and a second connecting element.

50. A detachable connection arrangement for connecting a first component having an opening to a second component having an opening, the connection arrangement comprising:

a vibration-damping ring insert arrangement comprising:

a vibration-damping ring comprising an outer circumferential surface and first and second annular projecting portions;

a hollow cylinder member comprising a first end, a second end, and an inner surface that is connected to the outer circumferential surface of the vibration-dampening ring;

the second end of the hollow cylinder member comprising one of an outwardly extending edge and outwardly extending edge segments, wherein the outwardly extending edge or the outwardly extending edge segments extend substantially perpendicular to an axis running through the hollow cylinder member,

wherein the first annular projecting portion extends beyond the first end of the hollow cylinder member, and wherein the second annular projecting portion extends beyond the second end of the hollow cylinder member; and

first and second connecting elements which are adapted to connect together first and second components,

wherein the first connecting element is at least partially arranged within an opening of the a vibration-dampening ring.